LISTING OF THE CLAIMS

The following is a complete listing of claims with a status identifier in parenthesis.

1. (Previously Presented) A method for improving the luminescent efficiency of semiconductor nanocrystals which comprises surface-treating the semiconductor nanocrystals with a reducing or oxidizing agent, wherein the nanocrystals are coordinated by an organic dispersant.

2. (Original) The method of claim 1, wherein the semiconductor nanocrystals are synthesized by a wet chemistry method.

3. (Previously Presented) The method according to claim 1, wherein the semiconductor nanocrystals are core-shell, alloy or gradient structures made of at least one material selected from the group consisting of CdS, CdSe, CdTe, ZnS, ZnSe, ZnTe, HgS, HgSe, HgTe, GaN, GaP, GaAs, InP and InAs.

4. (Previously Presented) The method according to claim 1, wherein the reducing agent is a hydride ion-generating salt, an organic reducing agent, a reducing gas or solution containing the gas.

5. (Previously Presented) The method according to claim 1, further comprising dispersing the nanocrystals in a solvent having an affinity with the dispersant.

6. (Previously Presented) The method according to claim1, wherein the dispersant is at least one compound selected from the group consisting of C_{2-18} alkylcarboxylic acids, C_{2-18}

alkenylcarboxylic acids, C_{2-18} alkylsulfonic acids, C_{2-18} alkenylsulfonic acids, C_{2-18} phosphonic acids, C_{2-18} alkylamines, C_{2-18} alkenylamines and the salts thereof.

7. (Previously Presented) The method according to claim 6, wherein the dispersant is at least one compound selected from the group consisting of oleic acid, stearic acid, palmitic acid, hexylphosphonic acid, n-octylphosphonic acid, tetradecylphosphonic acid, octadecylphosphonic acid, n-octyl amine and hexadecyl amine.

8. (Original) The method according to claim 1, wherein the nanocrystals and the reducing agent are mixed in a weight ratio of 1:10-10:1.

9. (Original) The method according to claim 1, wherein the surface treatment of the nanocrystals is carried out in the range of 0-100°C.

10. (Original) The method according to claim 1, wherein the surface treatment of the nanocrystals is carried out for 1 second to 2 days.

11. (Original) The method according to claim 1, wherein the nanocrystals have a shape or mixed shape of a sphere, a rod, a tripod, a tetrapod, a cube, a box or a star.

12. (Original) The method according to claim 1, wherein the nanocrystals have sizes of 1-50mm.

13. (Original) A semiconductor nanocrystal prepared by the method of claim 1.

14. (Previously Presented) An organic electroluminescent device comprising a plurality of organic and inorganic layers including a luminescent layer, wherein the luminescent layer comprises the semiconductor nanocrystals of claim 13.

15. (Previously Presented) A semiconductor nanocrystal having a chemically reduced or oxidized surface, wherein the semiconductor nanocrystal is coordinated by an organic dispersant.

16. (Previously Presented) The method according to claim 4, wherein the reducing agent is selected from a group consisting of sodium borohydride, lithium borohydride, lithium aluminum hydride, hydrazine, hydrogen gas, hydrogen sulfide or ammonia.

17. (Previously Presented) The semiconductor nanocrystal according to claim 15, wherein the organic dispersant is at least one compound selected from the group consisting of C_{2-18} alkylcarboxylic acids, C_{2-18} alkenylcarboxylic acids, C_{2-18} phosphonic acids, C_{2-18} alkylamines, C_{2-18} alkenylamines and the salts thereof.

18. (Previously Presented) The semiconductor nanocrystal according to claim 17, wherein the organic dispersant is at least one compound selected from the group consisting of oleic acid, stearic acid, palmitic acid, hexylphosphonic acid, n-octylphosphonic acid, tetradecylphosphonic acid, octadecylphosphonic acid, n-octyl amine and hexadecyl amine.